LETTER TO THE EDITOR

Posterior cerebral circulation in children with sickle cell anemia: an uncharted territory

Authors

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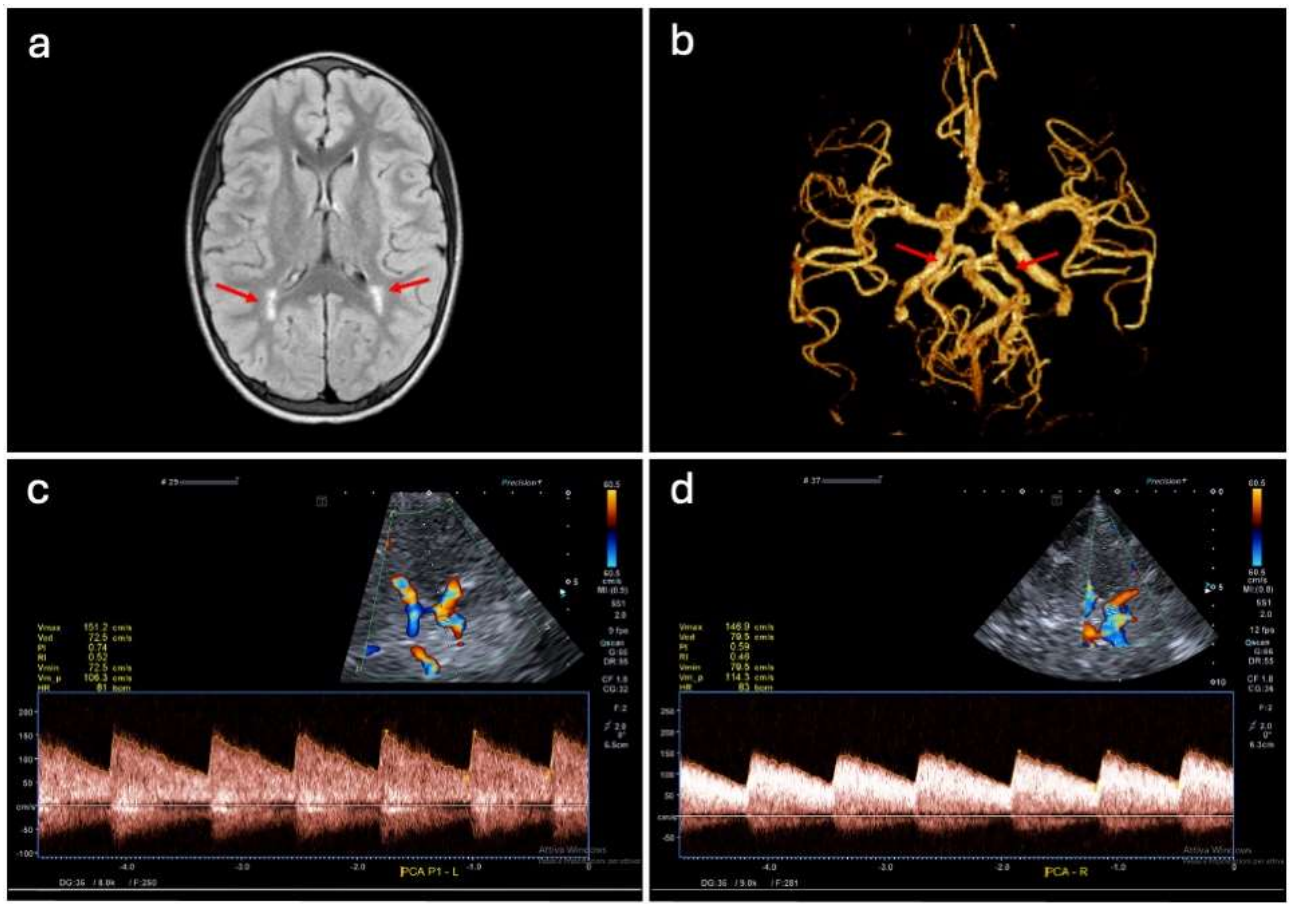
Supplementary Table 1. Comparison of hematological, neuroradiological and neurosonological data. ACS: Acute Chest Syndrome.

	Patients with posterior ischemic lesions	**Patients without posterior ischemic lesions**	**p value**
	n = 17 (19.6%)	**n = 70 (80.4%)**	
Age (years), *median (IQR)*	10.8 (7.95-13.2)	10 (6.6-13.4)	0.895
Hemoglobin at TCCD *(g/dL), median (IQR)*	8.6 (8.1-9.5)	8.7 (8.2-9.9)	0.387
History of ACS and/or spleen sequestration crisis, *n (%)*	10 (58.8)	39 (55.7)	0.668
History of ACS and/or spleen sequestration crisis, episodes per patient, *median (IQR)*	1 (0-3)	1 (0-2)	0.352
Therapy, *n (%)*			
Hydroxyurea	7 (41.2)	48 (68.6)	0.05
Chronic blood transfusions	2 (11.8)	3 (4.3)	0.251
Intracranial stenosis, *n (%)*	9 (52.9)	33 (47.1)	0.788
PCA stenosis, *n (%)* PCA stenosis, *n of arteries (%)**	4 (23.5) 8 (23.5)	4 (5.7) 5 (3.6)	0.042 0.002
STOP Trial Categories, *n (%)*			0.206
Normal	10 (58.8)	36 (51.4)	
Conditional	1 (5.9)	4 (5.7)	
Abnormal	1 (5.9)	0	
Low Flow	1 (5.9)	15 (21.4)	
Incomplete Examination	4 (23.5)	15 (21.4)	
TAMMV at TCCD *(cm/s), median (IQR)*			
Right PCA	76.0 (67.0-84.8)	69.5 (57.0-84.4)	0.481
Left PCA	81.0 (72.0-95.0)	68.2 (53.5-88.0)	0.048
BA	74.0 (66.0-80.0)	67.0 (54.0-78.0)	0.078
Top of BA	81.0 (42.0-89.0)	52.0 (38.5-70.0)	0.040

*Total PCAs: 34 in 17 patients with posterior ischemic lesions vs 140 in 70 patients without posterior ischemic lesions

Supplementary Figure 1. Neuroimaging in a child with Sickle Cell Anemia and posterior circulation involvement. a) MRI, arrows indicate posterior ischemic lesions; b) MRA, arrows indicate bilateral Posterior Cerebral Artery (PCA) stenosis; TCCD (c-d), increased blood flow velocities in the PCAs bilaterally



Supplementary Figure 2. Neuroimaging in a child with Sickle Cell Anemia without posterior circulation involvement. a) MRI; b) MRA; c-d) TCCD.